

SEKOLAH KEBANGSAAN ALAI ONLINE BOOKING SYSTEM (SKAOBS)

HAZWANI LIANA BINTI ABBAS

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Universiti Malaysia Pahang

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ABSTRACT

Sekolah Kebangsaa Alai (SKA) is a primary school that is provide booking management for teaching equipment that available in school library's screening room. It manages the operational of the reservation in matter of booking items. There are several problems identified when using the manual system. The process is conducted in manually. Problem occurs when there is redundancy of reservation. Person in charge hard to find available item where they need to check on self before approve the reservation. Data is also not being kept in the secure location. Information lost is common by using manual system. For the solution of the problems, SKA Online Booking System is developed to manage the operational of the reservation in matter of booking process and item management. SKAOBS is a web-based application system. The significant of the system allows the admin, staff, normal user and driver to check the availability of items directly. Data will be stored in a database. To develop this system, Prototype model had been chosen as a methodology. Hopefully this system can be really helpful and provide services and satisfaction to the user.

ABSTRAK

Sekolah Kebangsaan Alai (ska) adalah sebuah sekolah rendah yang menyediakan pengurusan tempahan alat bantu mengajar yang terdapat di dalam bilik tayangan perpustakaan sekolah. Tempahan barangan diuruskan oleh pihak sekolah. Terdapat beberapa masalah yang dikenal pasti apabila proses ini dikendalikan secara manual. Masalah berlaku apabila terdapat tempahan yang bertindih atau dibuat pada waktu yang sama. Orang yang bertanggungjawab untuk menguruskan tempahan ini harus mencari dahulu barangan yang boleh ditempah sebelum meluluskannya. Data juga tidak disimpan di tempat dan cara yang selamat. Dengan itu, maklumat-maklumat yang disimpan mudah untuk hilang bila-bila masa kerana ia disimpan didalam sebuah buku. Bagi penyelesaian masalah ini, Sistem Tempahan SKA dibangunkan untuk mengurus process tempahan alat bantu mengajar. SKAOBS adalah satu sistem aplikasi berasaskan web. Sistem ini membolehkan admin, kakitangan dan guru melihat senarai barangan yang boleh ditempah. Data akan disimpan dalam pangkalan data. Untuk membangunkan sistem ini, model prototaip telah dipilih sebagai metodologi. Semoga sistem ini boleh membantu melancarkan proses tempahan alat bantu mengajar di Sekolah Kebangsaan Alai dan memberikan perkhidmatan dan memuaskan hati pengguna.

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CHAPTER 1

INTRODUCTION

1.1 Introduction

Facilities are one of the vital issues that always come out with various feedback and view among people. This is because facilities become basic necessity to the people which should be provided with good management system to easier user performance in this modern era. In school library management of booking facilities should be conduct with efficient method which is essential to be review by the administrator. The required data should be store safely and easy to refer back when needed. Booking system need more attention on scheduling to reduce redundancy and clash. Manually system is not suitable to keep all those important data. Teacher need to write in a book to reserve teaching equipment and screening room. This will take time and the book may lose somehow and somewhere.[1]

By the development of Online Booking System for Sekolah Kebangsaan Alai (SKA), it may help the administrator and the teacher to conduct the booking system efficiently. Administrator need to login to approve the reservation whereas the available facilities have been list down in the system. Administrator also can post announcement to inform teacher the update news on booking system or process. For example, if there any information about new stock that available in school library or additional equipment is provided.

Teacher also have role to be fulfill in this Online Booking System. They need to login to make the reservation. Teacher need to key in several data, choose teaching equipment that still available, and book the available date to use it. This simple system is easy to be understand by user after follow some instruction display there.

This system helps the administrator to fixing the arrangement of the data, and also to computerize the data to make sure the data is safely stored and will never lost.

1.2 Problem Statement

In this modern era, technology is the main issues that people always consider in managing their daily life. With great technology it may help user to enjoy their work efficiently. Moreover it may reduce the usage lots of human energy, times and money when dealing with the work. So, the manual system is not suitable in managing the task.

In school library, there will be booking process for the facilities that available to the teacher to book teaching equipment and screening room. By manual process, many things should be consider by the administrator. For example, teacher possibly has to take time to book to avoid from clash schedule with other teacher. They have to check the available teaching equipment asking the person in charge manually. So, it makes use of time and human power. There may be occur miscommunication between them.^[2]

Problem in storing data, time usage to book, hard to find available teaching equipment and may clash in scheduling reservation of the facilities. Besides, redundancy data may also occur. Teacher needs to find the person in charge whereas it uses human power. With the development of software, it can help to solve that problem.

1.3 Objective

There is three objective of this project wants to archive:

- 1) To develop online booking system for school library administration
- 2) To align with online booking system with customer booking business
- 3) The system able to save user data efficiently in real-time retrieval

1.4 Scope

Scope for this SKA Online Booking System has been specified to respective category. This system uses Adobe Dreamweaver CS4 and XAMPP 1.7.4 tool and storage data that being used to develop this system. The client of this system is the teacher and library administration in Sekolah Kebangsaan Alai. This system will use Software Engineering approach and methodology with the documentation of Software Requirement Specification (SRS) and Software Design Document (SDD).

Administrator use this system to insert, update and delete the information such as list of teaching equipment, checking available items, add members, search data, produce management report, announce latest news to the teacher and also approve the reservation of the booking facilities.

For teacher, they can use this system to view and update their profile information. Viewing the system to add, delete and update booking of the facilities, search available items for teaching tools in school library's screening room and view the announcement and advertisement made by administrator.

1.5 Theses Organization

This theses organize six chapter whereas there will be introduction, literature review, methodology, implementation, result and discussion and also conclusion of the project. Introduction will be in chapter 1. This chapter is the introduction about the project that will be developed. It consists of introduction, problem statement, objective, scope, and thesis organization. Literature Review in chapter 2 will explain about the case study of the project and the technique or the software that has been used on the current system. Methodology in chapter 3 will discussed more close on the overall work flow in the development of the project. It justified the technique along with the equipment and the software. Chapter 4 will discuss on implementation of the project. In this phase, coding and testing for the whole development of this system are implemented after designing. The program determines either working properly or not. Chapter 5, result and discussion part will discuss obtained output gather from data analysis, project constrain and future works suggestion. Constraints categorized into two parts; development constraints and system constraints. Conclusion in Chapter 6 will concludes about the entire system. This chapter consists of project summary, the summary of gathered data and the suggestion of the enhancement related to this project.

CHAPTER 2

LITERATURE RIVIEW

2.0 Introduction

This chapter will discuss on the current system available, Online Booking System that being develop. The detail about the tool and method of the system used will be explained in this chapter. Comparison is carried out to make a conclusion for this research to clarify the approach and techniques have been use by existing system as the references. The overall of literature review topic that will be discussed is figure out in structural view in Figure 2.1 below.

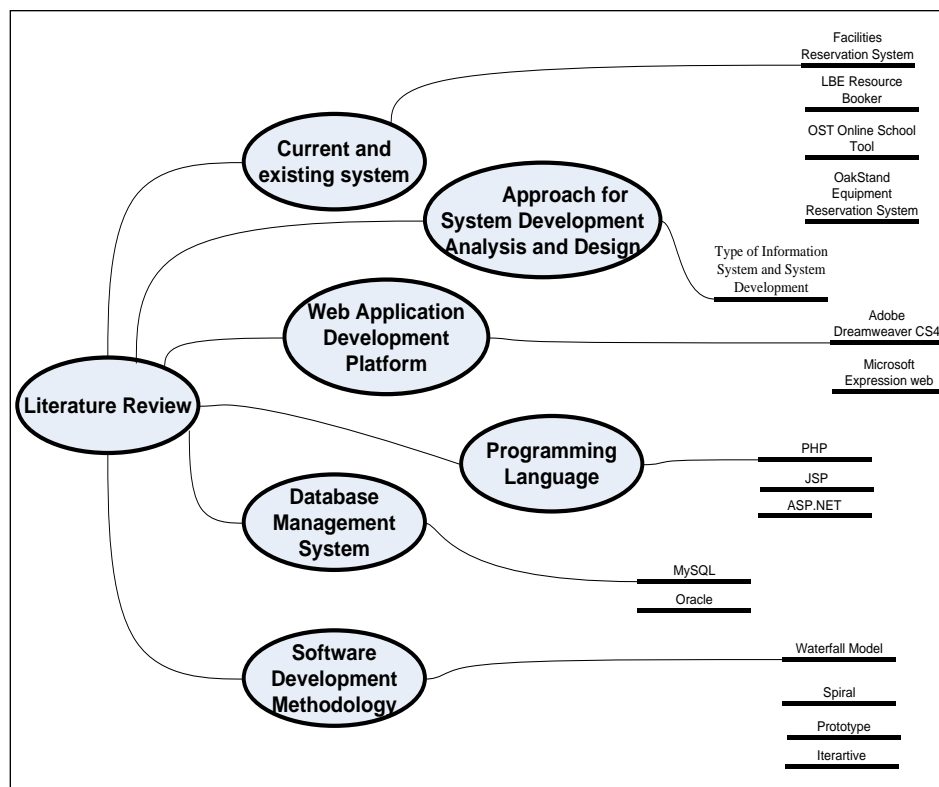


Figure 2.1: Literature Review Structure

2.1 Current Booking System in SKA

School management should be conducted in a good and great way to enhance the delivering important message and information to all individuals. The management of a process should work efficiently where as it could help people to manage the task with less difficulties. For example, in Sekolah Kebangsaan Alai (SKA) facilities management system that was conducted under library management done the task with manual process.

Current system using by SKA needs teacher or staff to book teaching equipment and screening manually where they needs to meet the person in charge to manage the task. Then user needs to fill in some data in a piece of record book. Human interaction is required to settle the task. Then, administrator need to do some conformation before approve the reservation. The overall view of manual process practice is figure out through flow chart in Figure 2.2 below.

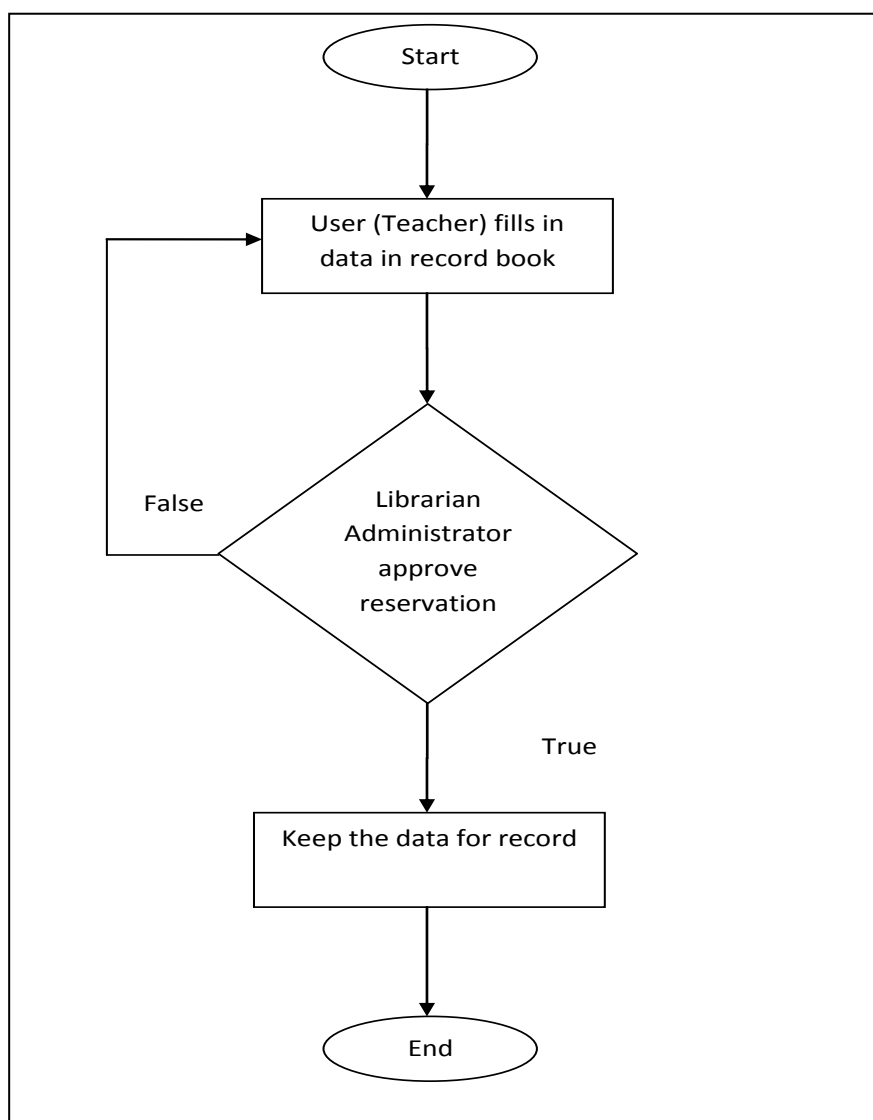


Figure 2.2: Manual Process Flow Chart

2.2 Manage Online Booking System

Booking system of teaching equipment and screening room in Sekolah Kebangsaan Alai (SKA) in computerize reservation is being develop. What is the reason we should use online system to manage it instead of using manual process? Online interactions represent a complex blend of human actors and technological systems. Trust exists between entities able to experience good will, extend good will toward others, feel vulnerable, and experience betrayal. These psychological states depend on consciousness and agency. Trust in Cyberspace adopted the terms “trust” and “trustworthy” to describe systems that perform as expected along the dimensions of correctness, security, reliability, safety, and survivability [1]. So, it clearly to say that to use this kind of services, online system, people needs to have good understanding and knowledge to work with machine and entities involve in the developing system.

For SKA Online Booking System, the equipment and room booking system will be combining together due to customer need and request. There is no current existing system that provides both type of booking system. Usually they are compute separately. So, it is not complete enough to be used in SKA Online Booking System. However, some idea from the existing system will be refer.

2.2.1 Current Existing System

i. Facilities Reservation System

Facilities Reservation System (FRS) 2.0 has been developed to manage facility scheduling through the use of Web 2.0 technology. FRS 2.0 is a free service to higher education and non-profit organizations. The FRS software interface is shown in Figure 2.3 below.

United States Colleges and Universities

Facilities Reservation System

Make Reservation Request View/Change Reservation Request Facility Descriptions & Details Retrieve Confirmation Number

Facility Selection

* denotes required fields

Date:

Institution:

Facility Unit:

☒ *Facility:

☐ *Group:

Figure 2.3: Facilities Reservation System interface

Figure 2.3 shows Facilities Reservation System is fully integrated solution for the management of conferences or meeting rooms and studio and performing arts facilities. This system focuses on both, users and administrators facilities. Features and benefit that user can have is this system eliminates scheduling conflicts and hassle. It is intuitive and easy to use, communication between entities is improve, flexible and many others.

The disadvantage of using Facilities Reservation System is the system is quite complex where as user need to have tutorial before using it because the process involve many steps. It is not suitable to use by governmental department like school. This may consume of time. The task is separated in different page, so some information may be unnoticed by the user. Then, the appearance of the features looks dull. It is important to attract people to use this kind of system_[2].

ii. LBE Resource Booker

Leigh Business Enterprises Ltd. (LBE) is a small software consultancy specializing in the development of software. LBE clients come from all over the world and all types and sizes of business like banks, healthcare, college and school. The LBE software interface is shown in Figure 2.4 below.

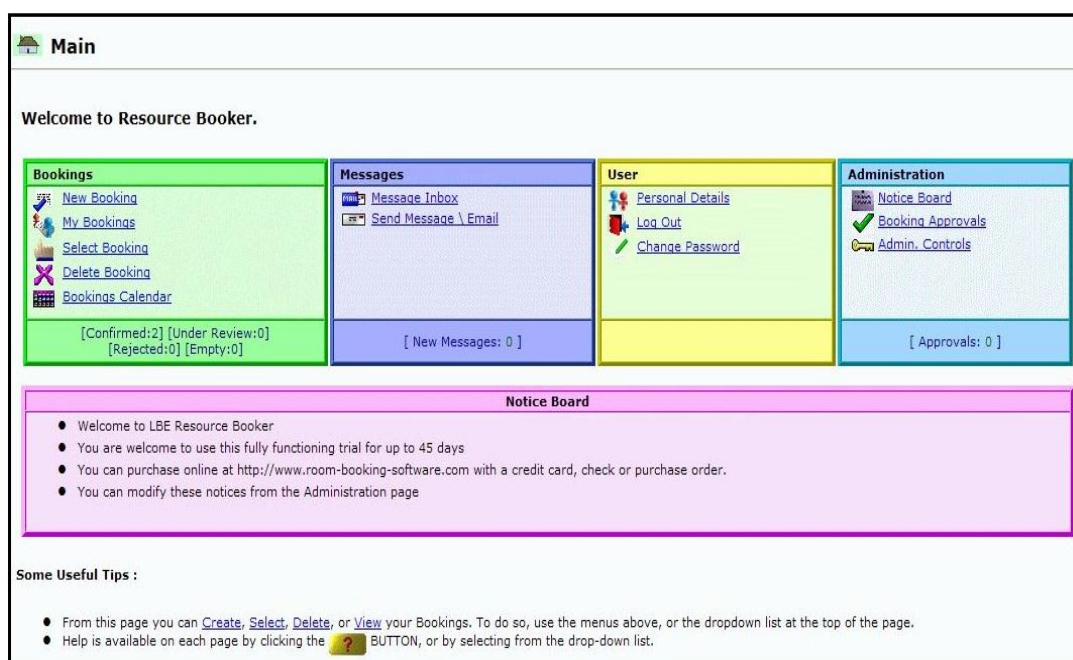


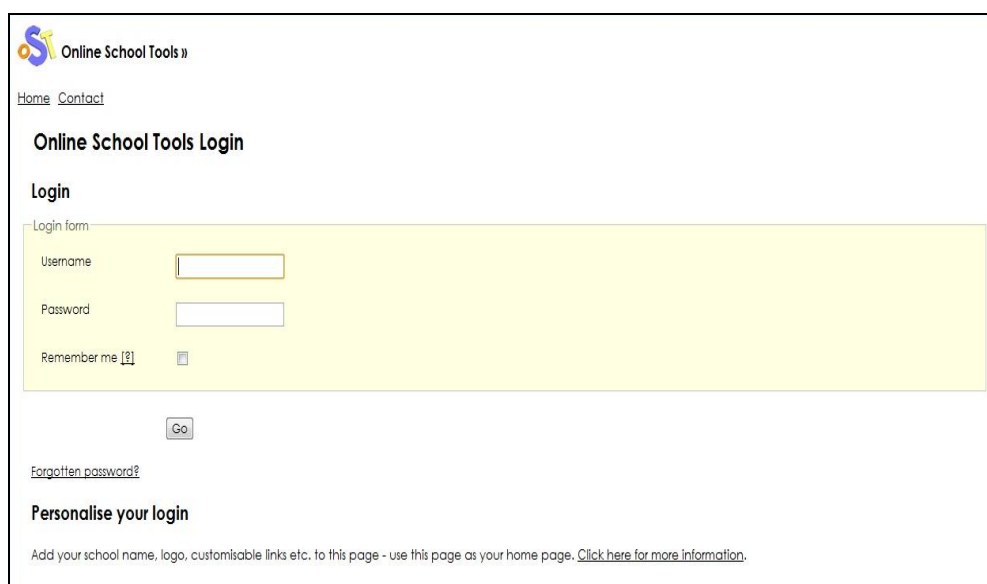
Figure 2.4: LBE Resource Booker interface

Figure 2.4 shows the LBE Resources Booker is develop to manage and schedule all resources, booking rooms and equipment. It is simple to use where user can create booking easily at anytime and anywhere because this system are develop used web based system. User can delete, repeat, view and manage the booking process with simple task. Booking calendar is providing for user references. Besides, notice board can be created and display in the main page. For the administrator they can go to their page to approve reservation, checking message and edit the resources that available to user.

However, LBE Resources Booker need to be install first. Corruption maybe occurs. Then, the main page for user and administrator does not separate. This makes the main page too complex. Good features just contain what is needed and related to their entities [3].

iii. OST Online School Tool

Online School Tool OST is free system that has been design, developed and tested by teachers to schools and colleges. The OST software interface is shown in Figure 2.5 below.



Online School Tools »

[Home](#) [Contact](#)

Online School Tools Login

Login

Login form

Username

Password

Remember me ☐

[Forgotten password?](#)

Personalise your login

Add your school name, logo, customisable links etc. to this page - use this page as your home page. [Click here for more information.](#)

Figure 2.5: Ernie-equipment booking OST interface

Online School Booking (OSB) provide Ernie-equipment booking Online School Tool as shown in figure 2.5 specifically designed developed and tested for teacher use in school to ease the management equipment booking system. By use OST it enable teacher to book, either selects a specific item or chooses a category and book straight away which is in online system. The main function of booking system is provided like setting up OST, booking equipment, and deleting booking. Besides, this system is cheaper than other existing system.

Nonetheless this Online School Tool has the disadvantages where the application provided is not very friendly user. The detail list of information for booking system is not clear. The instruction on the page does not highlight to notice the user.

iv. OakStand Equipment Reservation System (OERS)

Oakstand Equipment Reservation System is calendar-based system for organizations to enter and track equipment reservations for customers who reserve and borrow equipment from us as the administrator. The OERS system interface is shown in Figure 2.6 below.

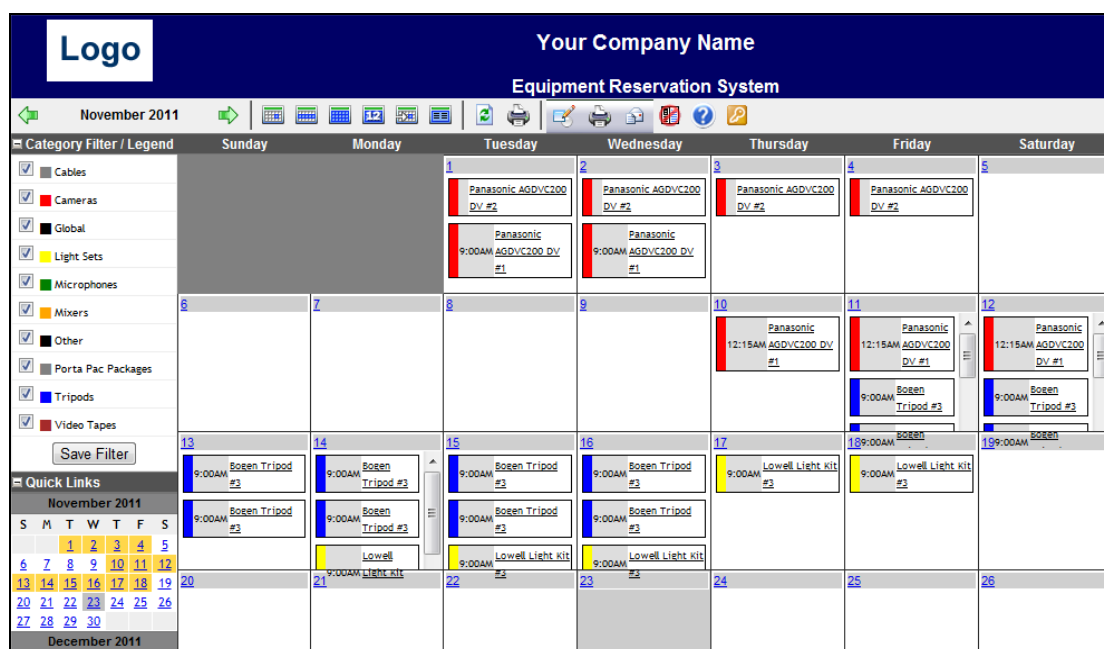


Figure 2.6: OakStand Equipment Reservation System (OERS) interface

Figure 2.6 shows the Oakstand Equipment Reservation System is a browser-based system that allows an organization of any size to easily and cost effectively set up a reservation system. OERS focus on building community, enabling participation, and easy site maintenance.

This system is compact in one page with the all application available. And the icons to represent a function like key diagram, for admin login function button is not clear enough to notice the user. There is no simple instruction to ease of use which can help the first time user. So, user manual is needed to explain more about the system usage.

2.2.2 Comparison on the Existing System

The comparison between listed existing system is describe in Table 2.1 below.

Table 2.1: Comparison of existing system

Existing System	Advantage	Disadvantage
Facilities Reservation System	<ul style="list-style-type: none"> - Simply day operation - Easy to use system for managing facility 	<ul style="list-style-type: none"> - Not suitable to be used in school management because FRS focus on higher education and non-profit organizations
LBE Resource Booker	<ul style="list-style-type: none"> - Set-up in minutes - Works with standard Microsoft Web Servers - Easily customized to suit organization's image 	<ul style="list-style-type: none"> - Not web-based system and cannot be view anywhere while no internet connection.

OST Online School Tool	<ul style="list-style-type: none"> - Simple system to ease of use - Saving time and money while accessing. 	<ul style="list-style-type: none"> - Interface does attractive and less interactive
Oakstand Equipment Reservation System	<ul style="list-style-type: none"> - Allow user to interact with the system well 	<ul style="list-style-type: none"> - The arrangement of menu makes the interface crowded.

2.2.3 Conclusion for the Existing System

After viewing several existing system which successful being developed and used by customer or user, there are some valuable idea that developer may refer to finished the development of SKA Online Booking System like take note the way how to manage the system. Table comparison of the existing system shown in previous session clearly views that online booking facilities and room booking system is develop separately. For this system, developer going to combine both services into one system due to customer need. This system try to enhance what have been done in current system to easier user task in settle up things with correct and strategic way.

2.3 Studies on Approach for System Development Analysis and Design

A modern approach is introduced in developing software to analyze and designing a system with best techniques. Jeffery A. Hoffer, Joey F. George, Joseph S. Valacich (2008, pg 3) found that: